
A9: Evaluating of Seating and Mobility Outcomes: Enhancing Evidence-Based Clinical Practice

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Learning objectives:

At the completion of this session, attendees will be able to:

1. Identify five elements of an effective single-subject research design.
2. Discuss three key points in the clinical application of single-subject research designs within seating and mobility practice.
3. Discuss the seven steps in designing a single-subject research study to evaluate specific seating and mobility outcomes within clinical practice.

Session description:

Given the ever increasing demands for evidence-based therapeutic outcomes, clinicians often grapple with how to effectively evaluate client-centred outcomes of seating and mobility interventions. This session will introduce the use of single-subject research designs (SSRDs) as a way to promote evidence-based evaluation of outcomes through a clinically oriented yet rigorous approach that allows clinicians to quantitatively evaluate and validate outcomes within their everyday practice. SSRDs utilize repeated measurements to study a client's individual responses to the systematic application and sometimes withdrawal of an intervention. By using the individual client as his/her own control, SSRDs not only accommodate specific client-related factors but allow these factors to become part of the outcome assessment process. Additionally, data analysis in SSRDs minimal statistical manipulation. Finally, SSRDs offer clinicians a viable and effective way to contribute to research within the confines of a busy clinical practice. Attendees are encouraged to bring outcome evaluation needs from their own practice to the session so that they can initiate the process of planning an SSRD to validate their seating and mobility practices.

Content references:

1. Bloom, M., Fishcer, J., Orme, J.G. (2009). *Evaluating Practice: Guidelines for the Accountable Professional*. Boston, MA: Pearson Publishers.
2. Barnett, S.D., Heinemann, A.W., Libin, A., Houts, A.C., Gassaway, J., Sen-Gupa, S., ...Brossart, D.F. (2012). Small N designs for rehabilitation research. *Journal of Rehabilitation Research and Development*, 49(1), 175-186.
3. Logan, L.R., Hickman, R.R., Harris, S.R., Heriza, C. B. (2008). Single-subject research design: recommendations for levels of evidence and quality rating. *Developmental Medicine & Child Neurology*, 50(2), 99-103.
4. Lillie, E.O., Patay, B., Diamant, J., Issell, B., Topol, E.J., Schork, N.J. (2011). The n-of-1 clinical trial: the ultimate strategy for individualizing medicine? *Personal Medicine*, 8(2):161-173.
5. Perdices, M., Tate, R.L. (2009). Single-subject designs as a tool for evidence-based clinical practice: Are they unrecognised and undervalued? *Neuropsychological Rehabilitation*, 19(6), 904-927.